BLOOD LOSS CALCULATION

Terminal Learning Objective

- Given the appropriate information. Perform estimated blood loss procedures IAW cited references.

Blood Loss Terminology

- Plasma - liquid portion of the blood
- RBC – (Red Blood Cells) Most important component in terms of blood loss.
  - Hematocrit-a number which represents the percentage of RBC's in a given volume of blood.
  - Hemoglobin-contains iron and is the oxygen carrying component of the RBC

BLOOD LOSS TERMINOLOGY

- **Total Blood Volume- the total amount of blood that is circulating in the body.**
- **Hypovolemia-decreased circulating blood volume**
- **Hemorrhage-severe blood loss. May be external or internal.**
- **EBL –(Estimated Blood Loss) a calculation of how much blood has been lost during the surgical procedure.**

IMPORTANCE OF MONITORING BLOOD LOSS

- An accurate accounting may be the verifying factor when deciding if a transfusion is needed.

Types of transfusions

- Whole Blood-consists of all of the components of blood-plasma,RBC,WBC,Platelets,etc. Not used very often.
- Red Blood Cells-most frequently used-PRBC used to restore oxygen transport
- Autotransfusion-get your own blood back
  - Cell Saver

Complications

- Transfusion Reactions
  - Fever, hives, difficulty breathing, allergic reactions, hemolytic reactions (destruction of RBC).
- Disease Transmission

  -HIV

  -Hepatitis B and C

  -Herpes viruses

PROCEDURE FOR PERFORMING BLOOD LOSS CALCULATION OF SPONGES

- **PRIOR TO CASE**
  - Zero scale
  - Weigh dry sponges by type and size.
  - Weigh moistened sponges by type and size

DURING SURGICAL CASE

- Remove sponges from the kick bucket.
- Place each sponge on the flat surface of the scale.

Cont.

- **Enter the gram (gm) weight on the chart next to the type and size of sponge. Note the weight of the type of sponge, either dry or saline moistened.**
- **Record the blood loss in milliliters (ml). 1 gm = 1 ml of blood loss.**

CALCULATING BLOOD LOSS FROM THE SUCTION CONTAINER

- Know the capacity of the irrigating syringe in use.
- Keep a record of all irrigation used.
- Subtract irrigation from total amount of fluid in the suction container

Cont.

- Convert fluids to milliliters (ml). 1 cc = 1 ml.
- The blood loss in the sponges will be added to the amount of blood loss from the suction container to equal the Estimated Blood Loss.